

Claims

1. A conductive masterbatch comprising a polyamide and conductive carbon black, said conductive carbon black being present in the form of at least one agglomerated particle having a major axis of 20 to 100 μm , wherein the number of said at least one agglomerated particle is 1 to 100 as observed under an optical microscope with respect to a contiguous area of 3 mm^2 .

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2. The conductive masterbatch according to claim 1, wherein the number of said at least one agglomerated particle is 1 to 50.

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3. The conductive masterbatch according to claim 1, wherein the number of said at least one agglomerated particle is 2 to 40.

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4. The conductive masterbatch according to claim 1, wherein the number of said at least one agglomerated particle is 2 to 30.

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5. The conductive masterbatch according to claim 1, wherein the conductive carbon black has a dibutyl phthalate (DBP) oil absorption of at least 250 ml per

100 g of the carbon black.

6. The conductive masterbatch according to claim 1,
which is in the form of pellets.

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7. The conductive masterbatch according to claim 6,
wherein the surface roughness of each of the pellets is
in the range of from 0.3 to 2.0 μm in terms of an aver-
age value of the surface roughness (Ra) values as meas-
10 ured by a surface roughness gauge with respect to a
plurality of surface portions of each of the pellets.

8. The conductive masterbatch according to claim 6,
wherein the surface roughness of each of the pellets is
15 in the range of from 0.4 to 1.5 μm .

9. The conductive masterbatch according to claim 6,
wherein each of the pellets has a cylindrical shape,
and has a diameter of from 1.5 to 3.5 mm and a length
20 of from 2.0 to 3.5 mm.

10. The conductive masterbatch according to claim 1,
wherein the amount of the conductive carbon black is in
the range of from 5 to 40 % by weight, based on the
25 weight of the masterbatch.

11. The conductive masterbatch according to claim 1,
wherein the amount of the conductive carbon black is in
the range of from 6 to 10 % by weight, based on the
5 weight of the masterbatch.

12. A conductive resin composition comprising a poly-
amide, a polyphenylene ether and conductive carbon
black, which is produced by melt-kneading the conduc-
10 tive masterbatch of claim 1 with the polyphenylene
ether and optionally an additional amount of a polyam-
ide.

13. The conductive resin composition according to
15 claim 12, wherein the amount of the conductive carbon
black is in the range of from 0.2 to 5 parts by weight,
relative to 100 parts by weight of the total of the
components of the conductive resin composition exclud-
ing the conductive carbon black.

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14. The conductive resin composition according to
claim 12, which is for use in the production of an
automobile outer panel.

25 15. A method for producing a conductive resin composi-

tion comprising a polyamide, a polyphenylene ether and conductive carbon black, which comprises the following steps:

- 5 (1) providing a conductive masterbatch comprising a polyamide and conductive carbon black, said conductive carbon black being present in the form of at least one agglomerated particle having a major axis of 20 to 100 μm , and
- 10 (2) adding said conductive masterbatch to a molten polyphenylene ether.

15 16. The method according to claim 15, wherein, in the step (2), an additional amount of polyamide is added to the molten polyphenylene ether, simultaneously with the addition of the conductive masterbatch.

17. The method according to claim 15 or 16, wherein said conductive masterbatch provided in step (1) is the masterbatch of claim 1.